



# Green Schools News

*EmPOWERing Maine Students to Know Their SOURCE*



Fall 2003

Volume 4, Issue 1



Finalists in the Junior Solar Sprint competition wait anxiously for the cue to release their cars for the final heat. Photo by Don Witherill.

## Racing Into Renewable Energy: The Junior Solar Sprint and Electrathon Races

**Junior Solar Sprint** In what has become an annual rite of spring in Maine, 56 teams of (mostly) middle school students converged on the Owls Head Transportation Museum the Saturday after Memorial Day. They came for the ninth running of the Junior Solar Sprint model solar car state championship. Sponsored by the Maine Department of Transportation and coordinated by the Maine Energy Education Program, the Sprint introduces young people to *photovoltaics*---electricity from (sun)light---at the same time it immerses them in the physics of automobiles. (How much do YOU know about gear ratios?) An opportunistic teacher can also use this activity to broaden her students' awareness of such issues as alternative fuels, air quality and global climate change. The teams invited to Owls Head had qualified by excelling at school or regional races earlier in May. Check out page 7 for a spread of the state champs! *Continued on page 7*

## MEEP Workshops Inspire Madison Elementary Students



Playing the Global Energy Game at a MEEP Leadership Workshop. Photo by Heather Healey.

Sixth graders at Madison Elementary held a two-day Energy Fair for their classes after attending one of MEEP's Fall Leadership workshops. Alice Deegan's students decided to plan an event where they could teach others about energy, using some of the games and activities they learned about. "The expectation for the group of students I brought to last year's workshops was to become facilitators for the rest of the class when we covered energy topics in the spring," Alice says, "They needed to become experts on the information and running the games/activities. Each of them got excited about this leadership role and brought that enthusiasm to the task." *Continued on page 2*




**Green Schools News is a publication of:**

Maine Energy Education Program (MEEP) and the Maine Department of Environmental Protection, Air Bureau (MDEP)

For more information, please contact:

Peter Zack  
P.O. Box 728  
Parsonsfield, ME 04047  
207-625-7833  
[meep@psouth.net](mailto:meep@psouth.net)

**What Can The Green Schools Program Do For You?**

-  Encourage Interdisciplinary Learning and Environmental Awareness
-  Foster better communication between students, teachers, custodians and administrators
-  Help your school save electricity, which results in more money for books and supplies for your classroom

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# "Watts" on the Web?

Check out these great websites for kids and teachers!

- <http://www.vitalcommunities.org/ValleyQuest/ValleyQuest.htm>

Find out more about Questing in New England at the Vital Communities Valley Quest website.

- <http://www.schoolsgogreen.org/>

Learn more about Questing, or Green Schools in general at the Antioch New England Center for Environmental Education website.

- <http://www.epa.gov/recyclecity/>

EPA's Recycle City page. Games, activities and information....for kids!

- <http://www.kidsrecycle.org/index.html>

The Kids Recycle site is a great tool for teachers and students who want to learn more and get involved.

- <http://www.environleader.org/community.html>

Ideas for teachers on how to get their students involved in community projects which focus on recycling.



## Fall 2003 Workshops!!

Call or email MEEP now to reserve a spot!

Energy Education Leadership Workshops for  
Teachers and Students

**Thursday, 16 October 2003**

Bethel Inn and Country Club, Bethel

**Tuesday, 21 October 2003**

South Berwick Town Hall, South Berwick

**Friday, 24 October 2003**

Penobscot Job Corps Center, Bangor

**Tuesday, 28 October 2003**

Woodfords Congregational Church, Portland

**Friday, 31 October 2003**

Cohen Center, Augusta

**Tuesday, 4 November 2003**

The Atrium, Brunswick

## TRANSPORTATION & ENVIRONMENT WORKSHOPS

**Thursday, 6 November 2003**

Woodfords Congregational Church, Portland

**Tuesday, 18 November 2003**

Owl's Head Transportation Museum, Rockland

## Start an Energy Patrol at Your School!



Two Energy Patrollers and their polar bear mascots. Photo by Maggie Donovan-Kaloust

Classes in 31 schools in Maine are trained to patrol their hallways and classrooms looking for energy waste. Make your school number 32! MEEP provides FREE Energy Patrol training and supplies for Maine schools. When you launch an Energy Patrol, you'll get an Energy Patrol kit complete with T-shirts, stickers, calendars and more. MEEP will also come into your classroom and train your class for you. And of course we will also bring you a coveted polar bear puppet to serve as your Energy Patrol mascot and as a reward for the most energy conscious classrooms. MEEP also offers energy audits and monthly reports on your school's energy savings to schools with active Energy Patrols. Call MEEP at 207-625-7833 to get started!



Energy Patrol goodies.

MEEP workshops continued from page 1. We held a two-day mini-workshop for our three sixth grade classes; the students chose to lead *The Great Energy Debate*, the *Energy Bingo* game and *Energy Jeopardy* back in the classroom. The also made energy mobiles and completed a research report on one of the energy sources, how it relates to the environment and which is the most environmentally friendly type of energy. The whole effort was very well received and the principal thought we had learned a lot. According to Alice "the MEEP workshop experience is well worth it! The games and activities are a jumpstart to the curriculum and the students get excited about their learning." See 2003 workshop schedule above.



## PLAY With Your TRASH!

### Recycle Relay

- Take three different buckets and label them: Recycle, Reuse or Trash.
- Make two teams. Give each team a pile of trash set several feet away from the buckets.
- The teams race to see who can get rid of their trash pile the fastest AND put the trash into the correct buckets. Hey! Is that an aluminum can in the trash bucket?

### Trash Sculpture Contest

- Provide some reusable trash, or have your students bring some in.
- Have a sculpture contest in which the sculptures are made using only

## Recycled Products at School Are Cool!

Where to Get School Supplies Made from Recycled Materials

### Reed Paper

PO Box 1704

Lewiston ME 04241

207-784-1591

Toll free: 1-800-482-0978

Get recycled napkins with your school's logo printed on them!

### Recycled Office Products, Inc.

44 Grove St. Bangor 04401

Joyce Schelling

207-262-5585



**Did You Know....** Recycling just one aluminum can saves

enough energy to power a computer for two hours?



# REDUCE, REUSE, RECYCLE!



## Teamwork Turns Trash Into Treasure at the Congdin School in Westbrook

Ruth's Reusable Resource Center is a little store on Route 1 in Scarborough that puts meaning behind the phrase "one person's trash is another person's treasure," and student council members at the Congin School in Westbrook know this firsthand. "You never know what you'll find when you go in there," says Congdin School teacher Sally Chaplain, "Everything from bottles to entire bolts of fabric to big shipments of new office chairs and file cabinets. It's a great resource for teachers."

At the Congdin School, student council alternates, who range from third to fifth grade, have a chance to be more than just fill-ins for the student council officers. They meet almost weekly to help make Ruth's what it is by doing projects like putting caps on bottles, pulling wire off of calendars, and sorting other reusable materials by color, shape or size.

"The teamwork is always amazing," says Chaplain, "when you sit back and watch 18 kids organize themselves, the leadership roles start to come out. They see the value in the work they are doing, and know they are making a difference"

Not only are they working together and developing their leadership skills, the student council members are also helping to solve a serious problem by keeping so many reusable materials from ending up in the dump. Of course, they also find ways to reuse the materials they sort as well. Materials get used for school projects, and the council members even created plans for Westbrook's bicentennial park using reusable treasures.

Ruth appreciates the student's work as well. "The kids do the things I just don't have the time to do. They've really been a big help," she says.

Ruth's Reusable Resource Center opened for its tenth season on August 13th. "I call it the free store for teachers.," Ruth says, "There are no cash registers, everything is free to teachers." Schools provide an annual membership fee of either \$1 per student or a lump sum of \$350 to Ruth's, which allows all their teachers to visit the store and shop for supplies...for free! Last year, Maine teachers visited Ruth's 5,600 times and walked away with over \$6 million worth of supplies. Interested in taking advantage of the great reusable materials Ruth's has to offer? Give Ruth's a call at 207-883-8407 to find out more.

**Quote of the Season:** "Mother Nature doesn't throw stuff away. Dead trees, birds, beetles and elephants are pretty quickly recycled by the system."

-William Booth



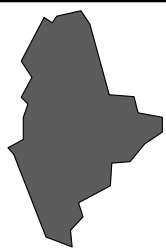


# Go Quest!



## What's Questing?

Questing is like a treasure hunt and a scavenger hunt in one. To design a Quest, students identify a natural or cultural (or both!) place in their community, pick a theme and set to work creating maps, writing a poem or story with clues to guide Questers through the site, and putting together a treasure box to entice visitors to the end of the Quest. Then, other students and community members grab some maps and head off down the trails of their local Quests.



### Quest Maine

The Maine Environmental Educator's Association (MEEA) is just beginning to put Questing on the Maine map, so to speak. This summer, they tested out one of the first Maine Quests at Maine Audubon in Falmouth.

The Maine Audubon Quest, called the Gilsland Farm Heritage Quest, takes Questers on a cultural and natural history tour of the Maine Audubon sanctuary. Maine Audubon is currently in the process of designing more Quests with local schools. Another Quest, the Topsham Recycling Quest (see page 6) was designed by the Kattywampus Trailblazers Cub Scouts and takes Questers on a tour of the Topsham Recycling Center. MEEA hopes that more Quests will begin to pop up around the state as more schools and groups become involved. To get more information on designing Quests, or to add your Quest to the list of Maine Quests call: **Deb Avalone-King at 207-287-2437** or email **deb-orah.j.avalone-king@maine.gov**.

### Designing a Quest?

#### A Few Tips from the Experts:

- Make your Quest in a public place and be sure to get landowner permission!
- Include a map and make sure your clues stay focused on your theme.
- Don't forget the treasure box (which should be waterproof) and include a pen, sign-in book, stamp and stamp pad
- Include some interesting background information
- Test out your Quest with friends before you open it up to the public. Make sure it runs smoothly.
- Be creative!

Get a copy of the Vital Communities Valley Quest book. Email them at [vital.communities@valley.net](mailto:vital.communities@valley.net), call them at 802-291-9100 or check out their website (see page 2 Watts on the Web)



### Interview With Peter Zack

Peter is involved with the Healthy Communities Coalition and also happens to be the MEEP director!



**GSN: How long have you been involved in Questing?**

PZ: I've been involved in creating Quests for about two years, when I set up a Quest at South Hiram Elementary School with Healthy Communities.

**GSN: How did you first find out about Questing?**

PZ: I read an article by David Sobel in Green Teacher magazine. Sobel works for the Center for Environmental Education in New Hampshire. I loved the notion of educational treasure hunts for kids and adults. The idea of Questing really appealed to me.

**GSN: What was your first experience with a Quest?**

PZ: Three years ago, my family and I did the Balch Hill Quest in Hanover, NH, which was created by a local girl scout troupe. I found this Quest in the Vital Communities Valley Quest Guide. It was my birthday, and I told my family I wanted to do a Quest! It was about a half hour walk, and the treasure box was hidden in a tree in an old maple grove at the top of the hill. My daughters were skeptical at first, but they ended up having a great time.

**GSN: What do you think the value of Questing is? Why Quest?**

PZ: Questing is very interdisciplinary and draws so many things together. It involves people in learning about their community from an environmental, historical, geographical and cultural perspective. I also appreciate the links it makes between generations. It's a wonderful activity for kids to do with their parents. Designing a Quest involves art, mapmaking, science and history, so I think it could be a valuable activity for teachers and students.

**Is your school near Topsham? Test out a Quest at the Topsham Recycling Center! See page 5.**

## To Get To the Topsham Recycling Center:



# The Topsham Recycling Quest

Designed by the Kattywampus Trailblazers Cub Scout Pack 646: Bryan Chonko, Ben Grotton, Rene Heins, Nathan Levesque, Alex Robinson and Lucas Shirland.

Take I-95 to Exit 24 (coming from the North, take the second Exit 24). This takes you to Route 196. Take 196 East straight through 5 sets of lights. At the 6th set of lights, turn LEFT toward Rte. 24 (Middlesex Rd) Turn RIGHT onto Rte 24.

Take the next LEFT onto Foreside Rd. Follow Foreside for 2.4 miles.

Turn LEFT onto Townsend Way. The Topsham Recycling Center is on this road.

### The Quest:

Welcome to Topsham and our recycling Quest, you're sure to learn a lot if you do your best.

Drive up the long driveway and turn to the right, the recycling center will come into sight.

Park in the lot and get out of your car, walk to the milk jugs, it's not very far.



1. Look in the bin, it's really fantastic  
Milk jugs you'll find here are made out of \_\_\_\_\_○  
The numbers on the jugs you must review  
You'll see they all have a number two!

2. Enter the building, the "returnables" you will pass.  
On the right is where they collect \_\_\_\_\_  
Some of the colors are green, brown or clear  
If it has a neck, it may be placed here

3. In this Quest you really must toil  
To find the spot for \_\_\_\_\_○\_\_\_\_\_ foil  
If everyone recycled the metal that goes here  
America's airplanes could be replaced four times a year!

4. When you receive packages at home  
They are often protected by \_\_\_\_\_○\_\_\_\_\_ TM  
This material forms the cups we hold  
That contains our drinks, both hot and cold

5. Corrugated \_\_\_\_\_ is next on your Quest  
When made from recycled paper helps the environment best  
Seventeen trees are NOT cut down  
For each ton of paper recycled by a town

6. People recycle this plastic in haste  
But in Topsham, three through seven are really \_\_\_\_\_

7. In order to recycle these items with ease  
Baling \_\_\_\_\_○\_\_\_\_\_ put on the squeeze!  
These machines make many a bale  
That Topsham Recycling puts up for sale  
Now exit the building, go out the side door  
Your Quest will continue, you're bound to learn more

Use the stamp in the treasure box to stamp here.



8. Out back in the trailers, the bales you will see  
Stored until shipped to their destiny  
1,000 pounds weigh paper bales when done  
Put two together and you've got a \_\_\_\_\_!  
Plastic bales weigh half as much  
You may look, but please don't touch

9. You drop your trash in the \_\_\_\_\_○\_\_\_\_\_  
Where it gets prepared for incineration  
This machine compacts a solid waste hash  
Soon to be burned-to make energy from trash!

10. Next on your Quest is the scrap \_\_\_\_\_○\_\_\_\_\_ bin  
You'll see lots of junk, if you dare to look in  
Clothes hangers, old bikes and car parts you'll see

11. Gaze toward the old landfill and see two piles of \_\_\_\_\_  
Be sure to divide "clean" from "demo" as everyone should  
Clean wood is ground into chips so small  
To spread onto gardens from spring until fall

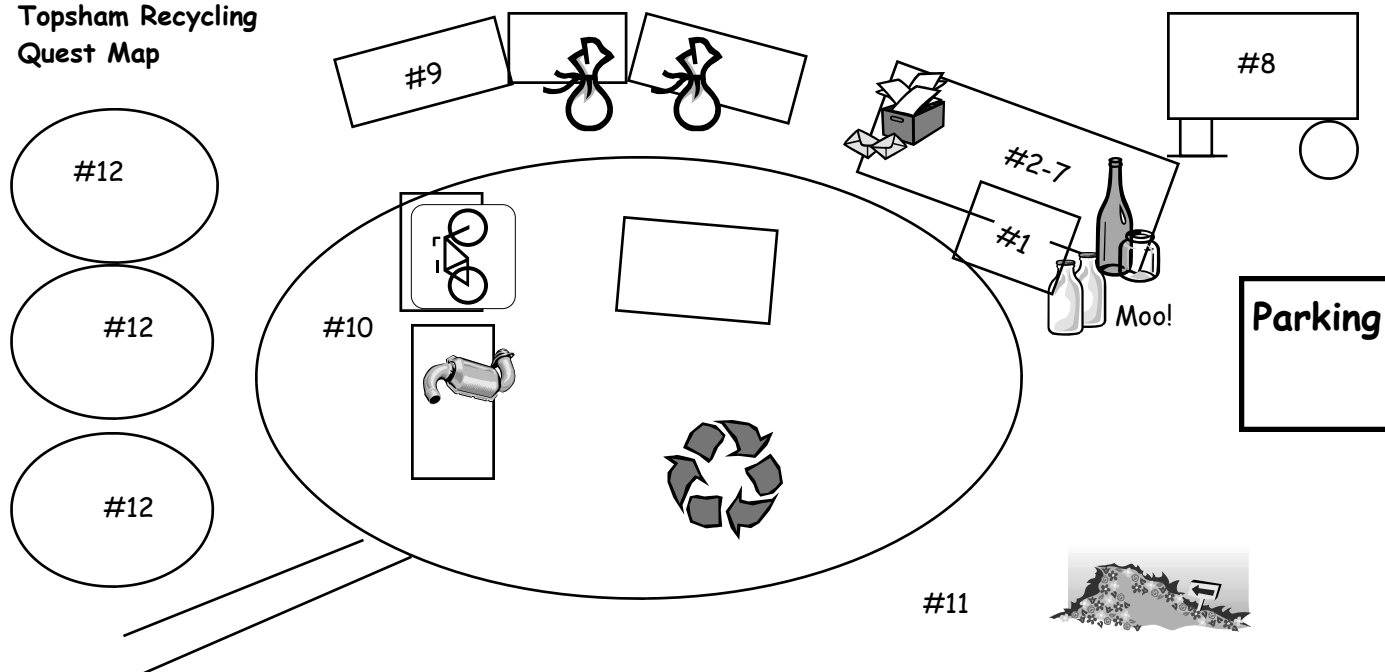
12. Manure, grass, ferns and leaves  
Its temperature may reach 150 degrees  
Before it "cooks" in smells really bad  
But it will help your garden grow like mad!  
If you want this Quest to be worth your while  
You have to stop by the \_\_\_\_\_ pile

**Conclusion:** Now that your Quest is done and complete,  
You must finish just one more feat  
The letters that are circled form a new clue  
Which will lead to the treasure, yes it is true!  
But before you go, consider this fact  
Think about it on your way back  
Each person in Maine wastes four pounds a day  
We'll be buried in trash if we go on that way!  
"Reduce, Reuse, Recycle" is the motto you know  
To protect our environment up high and down low  
Be sure to take this phrase to heart  
It is up to YOU to do your part!

See Topsham Recycling Quest Map and Center hours on  
Page 6

The Topsham Recycling Center hours are Tuesday—Saturday 8 a.m. to 5 p.m. It is closed on Sunday & Monday.

### Topsham Recycling Quest Map



## The Earth is in Your Hands...Or is it in Your Backpack? Maine Teachers Discover a New Teaching Tool



A Climate Change Backpack

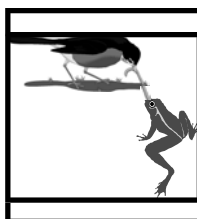
At a standing room only training at the Maine Environmental Educators Conference this past spring, Maine teachers learned about the Climate Change Backpack, a teaching tool that is literally a backpack filled with curriculum ideas, activities, props, experiments and research tools for teaching about global climate change. The teachers learned about the basic science behind this growing problem, watched demonstrations, played games and put on skits using the materials in the backpack.

The Climate Change Backpack was designed by the New England Science Center Collaborative to help educators teach about this challenging topic. The activities in the backpack are designed to be fun and hands-on, and at the same time provide a scientifically accurate learning experience for students. The Maine DEP has Climate Change Backpacks to loan to teachers at no cost, and supplements the backpacks with extra activities and information about how climate change will effect Maine. To find out more, check out the New England Science Center's Climate Change Backpack pages at: <http://www.nescc.info/programs.php#backpack>.

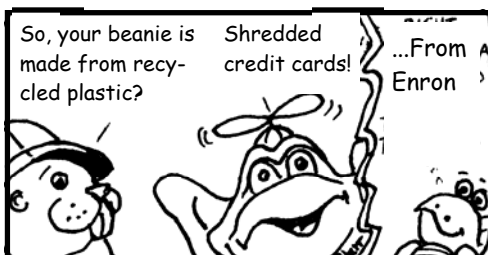
To borrow one of the Maine DEP's Climate Change Backpacks, contact **Deb Avalone-King** at 207-287-2437 or email [deborah.j.avalone-king@maine.gov](mailto:deborah.j.avalone-king@maine.gov). For more teaching resources on air quality, go to: <http://www.maine.gov/dep/air/outreach.htm>



Maine Conservation Corps Americorps members at the Maine DEP prepare to do a presentation using the Climate Change Backpack.



Sign up early for this year's **Jeepers Peepers Springwatch!** We had such a great response to the climate change theme that we're doing it again this year! Go to: <http://www.maine.gov/dep/blwq/doceducation/jeepers/index.htm> to find out more and to check out last year's project!





Continued from page 1-Junior Solar Sprint

### Junior Solar Sprint State Champions

Judging categories include *speed*, *technical merit*, *craftsmanship*, *innovation* and *kids' choice*. Kudos to the following first place teams:

Photos by Ron Severence & David Dorr



#### Innovation & Kids Choice:

*The Jolly Olly Truck*

Kayla Gaulden, Isabel Parkinson,  
Garnet Hathaway, Keegan Fairfield  
(Middle School of the Kennebunks)



#### Technical Merit & Craftsmanship:

*Wiesco*

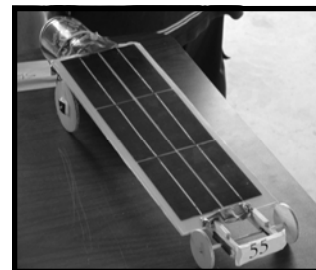
Alex and Aaron Dereszynski  
(Strong Elementary)



#### Speed:

*The Hood Rat*

Cam LeBlanc  
(Middle School of the Kennebunks)



### ...And Electrathon

Electrathon Maine's June racing event at Scarborough's Beech Ridge Motor Speedway presented a decidedly New England flavor. Of the 11 single person electric vehicles that advanced to the starting line under the green flag of race steward Rick Alderette, five hailed from out of state: two from Terryville (CT) High School, two from Plymouth (MA) North High School, and one from Kennett (Conway, NH) High School. The Kennett car, driven by junior Siiri Grubb (a female, dudes!), was participating in its first Electrathon competition.

After Alderette lowered the black and white checkered flag, however, it was perennial Maine high school champ Mt. Blue (Farmington) in the winner's circle. Student driver Peter Tingle pushed the #09 entry to 107 laps in the morning oval race and 83 over the afternoon's road course. Mt. Blue's 190 lap total barely nipped Open Class entry Fred Writt in Team Electrolite's (Portland, ME) #111 car, which fell just short at 187 laps. Falmouth (ME) High School's #3.14 vehicle with Bill Karn behind the wheel was second in the High School Class with 145 laps, and Plymouth North High School copped third place with 133 laps under the handling of Warren Collins.

At July's annual meeting in Portland, the following folks were elected as officers of Electrathon Maine for the 2003-2004 season:

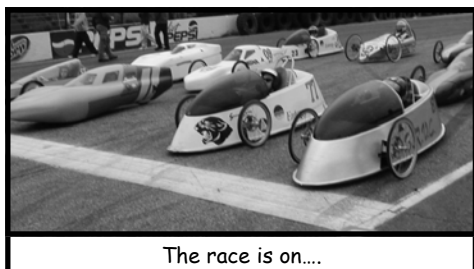
President: John MacDonald, *Mt. Blue High School*

Vice-President: David Dorr, *Sanford Regional Vocational Center*

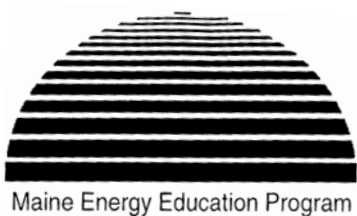
Secretary/Treasurer: Peter Zack, Jr., *Maine Energy Education Program*



Sanford Regional Vocational Center's Electrathon entry at the starting line. Photos by David Dorr.



The race is on....



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**PO Box 728**  
**Parsonsfield, ME**  
**04047**

**Winter 2003 Issue**

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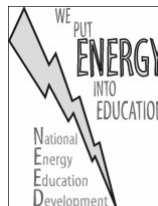
*Maine Energy Education Program - Energy Activities in an Ecological Context*  
 Phone: 207.625.7833 Email: [meep@psouth.net](mailto:meep@psouth.net) Web: <http://www.meepnews.org>

Check out MEEP's website at  
[WWW.meepnews.org!](http://WWW.meepnews.org)



**What are these kids doing?**  
**Look inside to find out.....**

**The Maine Green Schools Program is generously supported by the following sponsors:**



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 (AmeriCorps Volunteer, Maine DEP Bureau of Air Quality)

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